Notes

Data Preparation

Removed users with no lowest weigh-in score

Removed users with lowest weigh-in < 30 kg

Created Variables:

Subtracted Lowest Weigh-in from 1st Weigh-in

Subtracted Lowest Weigh-in from Initial Weigh-in

Data imputation was not performed since an adequate number of participants remained after data preparation (n = 7138).

Sum variables were used as Mean variables seem to be overly penalized by zero scores.

Data was normalized into z-scores for regression analysis.

Analyses:

Linear Regression: Standard method to test basic model. Regarding the figure after the analysis table, everything to the left of the dotted line has a negative impact on the target variable and everything to the right has a positive effect on the target variable.

Regression Tree: Determine the relationship between predictors and outcome variables at various predictor levels. Detailed insight.

Random Forest: Robust analysis that determines variable importance by testing 99 regression trees for all possible

combinations. Less detail, bigger picture insights into importance of predictors taking into account all possible combinations.

Data Sets:

Separate analyses were performed for "All Time Points", "Week 16", "Week 24", and "Week 52".